

REMARKS

In the *Office Action* mailed September 1, 2005, by Examiner Lee in Art Unit 2831, Claims 1-19 are pending in the application and Claims 1-18 stand presently rejected. By the present *Response and Amendment*, Applicants amend Claims 1, 2, 7, 10, 11, 15, and 18, and cancel Claim 19. Applicants have added new Claims 20-21. No new matter is believed to have been added by the present *Response and Amendment*. It is respectfully submitted that the present application is in condition for allowance for the following reasons.

1. The Amended and Newly Presented Claims

Independent Claims 1, 10, and 18 have been amended to clarify that the housing of the bushing is cast in one single unitary piece.

Claims 2, and 11 have been amended to move the limitation that the housing is a single unitary piece into Claims 1 and 10.

Claim 7 has been amended to remove the word "apparatus".

Claim 10 has also been amended to add a semi-colon after "a core".

Claim 15 has been amended to depend from Claim 14 rather than Claim 10.

Claim 18 has also been amended to correct the spelling of "resign" to "resin" and "silicon-rubber" to "silicone-rubber".

Claims 20 and 21 are new.

2. The Amended Specification

The Specification has been amended to correct a grammatical error using the word "an", and to add reference numeral "55" which is shown in Fig. 2 of the Drawings.

3. Election of Species

The Examiner has required restriction of the Claims under 35 U.S.C. § 121 asserting that Claims 1-18, drawn to a bushing, and Claim 19, drawn to a method of making a bushing are distinct. Applicants' attorney made a provisional election without traverse of Claims 1-18 during a telephone conversation with the Examiner on August 30, 2005. Applicants affirm the provisional election made during the August 30, 2005 telephone conversation with the Examiner to prosecute the invention of Group I, Claims 1-18 and have cancelled Claim 19.

4. Objections to the Drawings

The Examiner objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5) because they included Item 55 (in Fig. 2) that was not mentioned in the description portion of the Specification. Applicants have added reference numeral “55” to the description portion of the Specification to clarify that reference numeral “55” refers to the “electrical lead wire 55 that is also connected to the core 25.” Basis for this amendment is found in Fig. 2. Accordingly, no new matter is introduced by this amendment and it is believed that this objection is overcome.

5. Claim Objections

The Examiner objected to Claims 7, 10, 15 and 18 for the following informalities. Claim 7 was objected to for lack of antecedent basis for the phrase “said apparatus bushing”. Claim 10 was objected to for the grammatical error of the phrase “a core” not being followed by a semi-colon. Claim 15 was objected to for lack of antecedent basis for the phrase “said foil matrix”. Finally, Claim 18 was objected to for the misspelling of the word resin. Applicants have amended Claim 7 to remove the word “apparatus” from the phrase “said apparatus bushing”. Applicants have amended Claim 10 to add a semi-colon after the phrase “a core”. Applicants have also amended Claim 15 to depend from Claim 10 in order to provide proper antecedent basis for the phrase “said foil matrix”. Finally, Applicants have amended Claim 18 by replacing the word “resin” with the word “resin”. Accordingly, it is believed that these objections are overcome.

6. Claim Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 1-4, 10-13 and 15 under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 4,505,033 to Wheeler. Specifically, regarding Claims 1 and 10 the Examiner contends that Wheeler discloses a bushing containing a core; a flange; and a housing directly bonded or fastened to the core. Regarding Claims 2 and 11 the Examiner contends that Wheeler discloses a housing that is one unitary piece or of unitary construction when bonded to the core. Regarding Claims 3 and 13 the Examiner contends that Wheeler discloses a housing comprised of silicone-rubber. Regarding Claim 12 the

Examiner contends that Wheeler discloses a housing comprised of rubber. Regarding Claim 4 the Examiner contends that Wheeler discloses that the core consists of a stud with a resin-impregnated foil matrix wound around the stud for increased capacitance-grading. Finally regarding Claim 15, the Examiner contends that Wheeler discloses that the foil matrix is selected from a group consisting of a metal, a conductive ink, or a conductive element paper. Applicants respectfully traverse this rejection for the following reasons.

Wheeler is directed to a method and product of high voltage resistant members such as a bushing. The bushing of Wheeler is formed by placing a sheath of rubber on a core, mounting multiple sheds on the sheath (collectively forming a housing), and then heating the resulting assembly to vulcanize the sheath thereby bonding the sheath to the core and the sheds forming an integrated bushing. See Col. 3, lines 13-21 and Col. 4, lines 6-10. The individual sheds are either separately molded and then placed on the sheath, or they are successively molded in steps over the sheath and core or along a bare core. See Col. 3, lines 31-54; and Col. 5, lines 17-35. Several sheds are required to produce a housing that extends the full length of the core. See Figs. 1-3 and 5-7.

Applicants have amended Independent Claims 1 and 10 to clarify that the housing of the present invention “is cast as a single unitary piece.” Support for this amendment is found in the original Specification on p. 5, lines 7-9 and lines 14-15; p. 7, lines 4-7; and Fig 2. As such, the present invention simplifies the manufacture of the bushing and eliminates problems found in the prior art. As stated above, Wheeler discloses the use of a housing made up of several sheds that are either separately molded and then placed on the sheath, or successively molded in over the sheath and/or core. Bushings made by this method have been known to fail because the multiple sheds may slip or move unexpectedly. The bushings have also been known to fail due to separation between the sheath and core. Wheeler fails to disclose the novel housing of the present invention. Accordingly, Wheeler fails to disclose each and every claim limitation in Independent Claims 1 and 10 as amended, and it is believed that the rejection of Independent Claims 1 and 10 is overcome.

Dependent Claims 2-4, 11-13 and 15 all depend from Independent Claim 1 or Independent Claim 10. Because dependent claims include the limitations from which they depend, Dependent Claims 2-4, 11-13 and 15 also include the limitation that the housing is

cast as a single unitary piece. Accordingly, it is believed that the rejection of Dependent Claims 2-4, 11-13, and 15 is overcome.

7. Claim Rejections under 35 U.S.C. § 103(a)

The Examiner has also rejected Claims 5, 6, 14 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Wheeler, in view of U.S. Patent No. 3,828,114 to Priaroggia et al. Dependent Claims 5, 6 and 14 ultimately depend from either Independent Claim 1 or Independent Claim 10. As such, these dependent claims include the limitation that the housing of the present invention is cast as a single unitary piece. Independent Claim 18 has also been amended to include this same limitation. As explained above, Wheeler fails to disclose this limitation. Moreover, Wheeler and Priaroggia do not teach, disclose, suggest, or render obvious this limitation either separately or combined. Accordingly, it is believed that this rejection is overcome.

The Examiner has also rejected Claims 7, 9 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Wheeler, in view of U.S. Patent No. 4,123,618 to Cushing et al. Dependent Claims 7, 9 and 17 depend directly from either Independent Claim 1 or Independent Claim 10. As such, these dependent claims include the limitation that the housing of the present invention is cast as a single unitary piece. As explained above, Wheeler fails to disclose this limitation. Moreover, Wheeler and Cushing do not teach, disclose, suggest, or render obvious this limitation either separately or combined. Accordingly, it is believed that this rejection is overcome.

Finally, the Examiner has also rejected Claims 8 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Wheeler, in view of U.S. Patent No. 5,220,134 to Novel et al. Dependent Claims 8 and 16 depend directly from either Independent Claim 1 or Independent Claim 10. As such, these dependent claims include the limitation that the housing of the present invention is cast as a single unitary piece. As explained above, Wheeler fails to disclose this limitation. Moreover, Wheeler and Novel do not teach, disclose, suggest, or render obvious this limitation either separately or combined. Accordingly, it is believed that this rejection is overcome.

8. Newly Presented Claims

Applicants have added new Claims 20 and 21. New Claim 20 adds the limitation that the housing is cast from a free-flowing, fast curing, liquid silicone rubber. Basis for new Claim 20 is found in the original Specification at p. 5, lines 14-15. New Claim 21 adds the limitation that the bushing of the present invention further comprises a draw lead terminal attached to the top of the housing. Basis for new Claim 21 is found in the original Specification at p. 5, lines 19-21 and Figs. 1 and 2. Therefore no new matter has been introduced by new Claims 20 and 21.

9. Fees

No Claims fees are believed due, as the total number of independent Claims remains at three or less by the present *Response and Amendment* and the total of all claims does not exceed twenty. If, however, it is determined that fees are due, authorization is given to charge deposit account 23-1951.

CONCLUSION

Pursuant to the above remarks and amendment, reconsideration and allowance of the pending application is respectfully requested. The Examiner is invited and encouraged to directly contact the undersigned if such contact may enhance the efficient prosecution of the application to issue.

Respectfully submitted,



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